REMARKS

In light of the above amendments and following remarks, reconsideration and allowance of this application are respectfully requested.

At paragraph 3 of the outstanding Office Action, the Examiner has rejected claims 1-20 under 35 U.S.C. §103(a) as being unpatentable over Yamadaji (U.S. Patent No. 6,192,138) in view of Rhoads et al. (WO 99/10837). Applicants respectfully traverse the rejection.

As noted by the Examiner, Yamadaji does not specifically teach utilizing the energy distribution for decoding as claimed. The Examiner then relies on Rhoads et al. to teach this feature of the claimed invention. However, Applicants disagree with the interpretation of the portion of Rhoads et al. relied upon by the Examiner. Specifically, at page 8, lines 15-18, as well as pages 9 and 10 of Rhoads et al., it is described that the implementation of a digital watermark will increase the coding length in a Huffman encoding situation. Thus, in accordance with the invention set forth in Rhoads et al., the watermark is correlated to the image into which the watermark is embedded and thus the entropy of the combined image and watermark will be substantially equal to the entropy of the watermark alone. Therefore, rather than using the entropy and energy distribution to decode an encoded message, the entropy is considered and managed during encoding, so that a similar entropy results after encoding an image with a watermark. This is performed by modifying some of the data, so that the output data is in fact different from the input data. This is very similar to the features described in the background of the present invention.

As is shown at page 1, lines 11-18 of the background of the specification as filed, and as employed in Rhoads et al., least significant bits are changed in a way that, while not greatly

effecting data, does result in different data. The present invention specifically improves on this situation, resulting in a non-compromised image.

This prior art system is markedly different from the claimed invention, in which a watermark is encoded into the data, thus reducing the entropy energy in the image. Upon decoding, by using this reduction in entropy to return the encoded image back to its original form, not only can the original image be extracted without any resulting changes to the data, but also the additional information used to encode the original image can be extracted. Thus, as is shown at pages 8-10 of the present invention, the encoded data is able to be decoded by returning an entropy distribution back to its pre-encoding format, while in Rhoads et al., during encoding, the goal is to keep entropy at a similar level so that various buffers, etc. do not overflow or underflow. However, in Rhoads et al., because the entropy level is similar before and after encoding, it would not be possible to use any change in the entropy level to decode the encoded image.

Therefore, not only does Rhoads et al. not teach the claimed invention, but the use of Rhoads et al. to decode in a manner suggested by the claimed invention would not be possible.

Because independent claims 1, 5, 6, 10, 11 and 16 all decode coded data utilizing an energy distribution possessed by the first information, Applicants submit that because the combination of references relied upon by the Examiner fails to depict this feature of utilizing the energy distribution to decode the information, Applicants respectfully request that the rejection of each of these independent claims under 35 U.S.C. §103(a) be withdrawn. Furthermore, the remaining claims depend, either directly or indirectly from one of these independent claims, and are therefore allowable for this reason alone, and additionally as presenting independently patentable combination in and of their own right. Applicants therefore respectfully request that the rejection of claims 1-20 under 35 U.S.C. §103(a) be withdrawn.

CONCLUSION

Applicants have made a diligent effort to place claims 1-20 in condition for allowance, and notice to this effect is earnestly solicited. If the Examiner is unable to issue a Notice of Allowance regarding these claims, the Examiner is requested to contact the undersigned attorney in order to discuss any further outstanding issues.

Early and favorable consideration are respectfully requested.

Respectfully submitted,

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